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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,427	10/22/2003	Wolfgang Wolff	H 5165 PCT/US	7828

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HENKEL CORPORATION
THE TRIAD, SUITE 200
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EXAMINER

ELHILO, EISA B

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,427

Applicant(s)

WOLFF ET AL.

Examiner

Eisa B Elhilo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/22/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Claims 1-23 are pending in this application.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9, 15, 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Madrange et al. (US 5,143,518).

Madrange et al. (US' 518) teaches a hair dyeing composition comprising oxidation dye precursors (see col. 12, line 60-61), silicone polymers of dialkyl polysiloxane such as dimethyl polysiloxane as claimed in claims 2- 4 (see col. 31, claim 12) and amodimethicone as claimed in claim 5 (see col. 2, line 45), cationic homopolymer of dimethyldiallylammonium chloride (Merquat 100) and co-polymer of dimethyldiallylammonium chloride with acrylamide (Merquat 550) that contains the monomer units of formula (1) as claimed in claims 1 and 6-9 (see col. 12, lines 38-45), primary intermediates (oxidation bases) as claimed in claim 15 (see col. 12, line 62-64), secondary intermediates (couplers) as claimed in claim 17 (see col. 12, lines 65-68), direct dyes (substantive dye) as claimed in claim 18 (see col. 14, line 17). Madrange (US' 518) also teaches a method for dyeing hair comprising applying to the hair the dyeing composition as described above to which there is added an oxidizing agent and the mixture is left on hair for a sufficient time and after which the hair is rinsed and dried as claimed in claim 19 (see col. 15,

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lines 61-68 and col. 16, lines 1-2). Madrange et al. (US' 518) teaches all the limitations of the instant claims. Hence, Madrange (US' 518) anticipates the claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madrange et al. (US 5,143,518).

Madrange et al. (US' 518) teaches a method for dyeing hair comprising applying to the hair a dyeing composition comprising oxidation dye precursors (see col. 12, line 60), polymers containing the monomer unit of the claimed formula (I) (see col. 12, lines 38-45) silicone polymers (see col. 2, line 45) and quaternary ammonium polymers (quaternary ammonium compounds) (see col. 5, lines 33 and formula V), wherein the dyeing composition is mixed with oxidizing agent of hydrogen peroxide and then the mixture is applied to the hair and left on hair for a period of time and then the hair is rinsed and dried (see col. 15, lines 50-68 and col. 16, lines 1-2).

Although Madrange et al. (US' 518) teaches a method for dyeing hair comprising applying to the hair the dyeing composition as described above, Madrange et al. (US' 518) does not teach or suggest the steps of mixing the dyeing composition with oxidizing agent comprising quaternary ammonium compound as claimed in claims 20 and 22 and wherein the dyeing

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composition is applied first to the hair before the application of the mixture of the dyeing composition and oxidizing agent as claimed in claim 21.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use such a process for dyeing hair by applying to the hair a dyeing composition before or after mixed with an oxidizing agent that comprises quaternary ammonium compounds because the reference teaches a hair dyeing composition wherein the composition comprises similar dyeing ingredients includes quaternary ammonium compounds and wherein the dyeing composition is mixed with an oxidizing agent before it applied to the hair, and, thus a person of an ordinary skill in the art would expect such a process to have similar properties to those claimed no matter which step is applied first, absent unexpected results.

Further, the applicant has not shown on record the criticality of the steps in the claimed process.

4 Claims 10-14 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madrange et al. (US 5,143,518) in view of Cotteret et al. (US 5,735, 908).

Madrange et al. (US' 518) teaches a hair dyeing composition comprising oxidation dye precursors (see col. 12, line 60-61), silicone polymers of dialkyl polysiloxane of dimethyl polysiloxane (see col. 31, claim 12) and amodimethicone (see col. 2, line 45), cationic homopolymer of dimethyldiallylammonium chloride (Merquat 100) and co-polymer of dimethyldiallylammonium chloride with acrylamide (Merquat 550) that contains the monomer units of formula (1) (see col. 12, lines 38-45).

Although Madrange et al. (US' 518) teaches a hair dyeing composition comprising homopolymers, co-polymers and amphoteric polymers as described above, Madrange et al. (US'

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518) does not teach or suggest amphoteric co-polymers containing at least one monomer unit of the claimed formula (I) and acrylic acid and/or methacrylic acid as claimed.

Cotteret et al. (US' 908) teaches in analogous art of hair dyeing compositions, a composition comprising amphoteric co-polymers of diallyldimethylammonium chloride and acrylic acid (Merquat 280) as claimed in the instant claims (see col. 4, lines 53-54). Cotteret et al. Also teaches a multi-compartment dyeing devices or kits which are similar to the claimed kit as claimed in claim 23 (see col. 2, lines 60-67).

Therefore, in view of teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made to make such a dye composition by incorporating the amphoteric co-polymers of diallyldimethylammonium chloride and acrylic acid as taught by Cotteret et al. (US'908) in the dyeing composition of Madrange et al. (US' 518), with a reasonable expectation of success because the primary reference of Madrange et al. (US' 518) clearly teaches and suggests the use of the cationic homopolymer of dimethyldiallylammonium chloride (Merquat 100) and co-polymer of dimethyldiallylammonium chloride with acrylamide (Merquat 550) that contains the monomer units of formula (1) (see col. 12, lines 38-45) in hair dyeing composition for improving the cosmetic properties of hair (see col. 1, lines 43-51) and the secondary reference of Cotteret et al. (US' 908) teaches a hair dyeing composition comprising the amphoteric co-polymers of diallyldimethylammonium chloride and acrylic acid (Merquat 280) (see col. 4, lines 53-54) and wherein the dyeing composition is provided in a dyeing devices or kits, and, thus, a person of an ordinary skill in the art would expect that the use of the amphoteric co-polymers of diallyldimethylammonium chloride and acrylic acid (Merquat 280) as

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taught by Cotteret et al. (US' 908), would be similarly useful and applicable to the analogous dyeing composition taught by the primary reference of Madrange et al. (US' 518).

5 Claims 1 and 6 - 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Millequant et al. (US 6,312,677 B1).

Millequant et al. (US' 677 B1) teaches a hair dyeing composition comprising homopolymer of dimethyldiallylammonium chloride (Merquat 100) that contains the monomer units of formula (1) as claimed in claims 1 and 6-7 (see col. 7, lines 3-6), co-polymer of dimethylallylammonium chloride and acrylamide (Merquat 550) that contains the monomer units of formula (1) as claimed in claims 8-9 (see col. 7, lines 7-9), co-polymer of dimethyldiallylammonium chloride and acrylic acid (Merquat 280) as claimed in claims 10-14 (see col. 13, lines 44-49), silicone polymers as claimed in claim 1 (see col. 10, formula VI), oxidation dye precursors (primary intermediates), couplers (secondary intermediates), indole precursors and direct dyes as claimed in claims 1 and 15-18 (see col. 14, lines 23-42). Millequant et al. (US' 677) also teaches a similar method for dyeing hair comprising applying to the hair the dyeing composition as described above after diluted at the time of use with the oxidizing solution wherein the composition is allowed to act for a period of time and the hair is then rinsed as claimed in claim 19 (see col. 15, lines 59-64).

Although Millequant et al. (US' 677 B1) generally discloses a hair dyeing composition comprising oxidation dye precursors, polymers containing the monomer unit of the claimed formula (I) and silicone polymers, the reference does not require such a dyeing composition with sufficient specificity to constitute anticipation.

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However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to formulate such a dyeing composition, as taught by Millequant et al, which contained oxidation dye precursors, polymers containing the monomer unit of the claimed formula (I) and silicone compounds, because such a dyeing composition falls within the scope of those taught by Millequant et al. Therefore, one of an ordinary skill in the art would have had a reasonable expectation of success, because such a dyeing composition containing oxidation dye precursors, polymers containing the monomer unit of the claimed formula (I) and silicone compounds is expressly suggested by the disclosure of Millequant et al. (US' 677 B1) and therefore, is an obvious formulation.

Conclusion

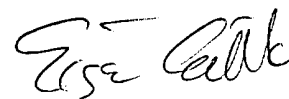
The remaining references listed on from 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the rejection above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eisa Elhilo
Patent Examiner
Art Unit 1751

May 9, 2004